

Amendments to the Claims:

Please amend claims 39-40, 46-47, 52 and 55 and cancel claims 41-45 as follows. This listing of claims will replace all prior versions and listings of claims in this application:

Listing of Claims:

1-38. (Canceled).

39. (Currently Amended) A monoclonal antibody or antigen-binding fragment thereof that binds to a type III epitope of pleiotrophin (PTN) and neutralizes at least one biological activity of PTN, wherein said biological activity is selected from the group consisting of: receptor binding activities, signaling transduction activities, cellular responses induced by PTN, promoting cancer cell growth, promoting cancer cell proliferation, promoting metastasis of cancer cells, and promoting angiogenesis.

40. (Currently Amended) The antibody or antigen-binding fragment thereof according to claim 39 comprising any one of the following:

(a) a monoclonal antibody or antigen-binding fragment thereof produced by a hybridoma cell line selected from the group consisting of 3B10, 4B2, 10, 17, 24, 25, 26, 27, 31, 41, 50, 60, 87, 3-4A, and 3-11F;

(b) an antibody or antigen-binding fragment thereof that binds to an epitope, which is substantially the same as an epitope of the monoclonal antibody or antigen-binding fragment thereof produced by a hybridoma cell line selected from the group consisting of 3B10, 4B2, 10, 17, 24, 25, 26, 27, 31, 41, 50, 60, 87, 3-4A, and 3-11FA;

~~(b) a monoclonal antibody or antigen-binding fragment thereof produced by a hybridoma cell line selected from the group consisting of 3B10, 4B2, 10, 17, 24, 25, 26, 27, 31, 41, 50, 60, 87, 3-4A, and 3-11F; or~~

(c) an antibody that competitively inhibits binding of a PTN polypeptide to an antibody comprising a sequence comprising selected from SEQ ID NOs: ~~3, 5, 6, 7, 8, 10, 11, and 12, or~~ SEQ ID NOs: 3 and 8,

wherein the antibody or antigen-binding fragment comprises: (i) a light chain CDR1, (ii) a light chain CDR2, (iii) a light chain CDR3, (iv) a heavy chain CDR1, (v) a heavy chain CDR2, and (vi) a heavy chain CDR3.

41-45. (Canceled).

46. (Currently Amended) The antibody or antigen-binding fragment thereof according to claim 39, wherein said antibody comprises an amino acid sequence comprising sequences with at least about 90% sequence identity with ~~a sequence selected from~~ SEQ ID NOs: ~~3, 5, 6, 7, 8, 10, 11, and~~ 12, or SEQ ID NOs: 3 and 8,

wherein the antibody or antigen-binding fragment comprises: (i) a light chain CDR1, (ii) a light chain CDR2, (iii) a light chain CDR3, (iv) a heavy chain CDR1, (v) a heavy chain CDR2, and (vi) a heavy chain CDR3.

47. (Currently Amended) The antibody or antigen-binding fragment thereof according to ~~the~~ claim 39, wherein said antibody comprises an amino acid sequence comprising selected from SEQ ID NOs: 3 and ~~or~~ 8,

wherein the antibody or antigen-binding fragment comprises: (i) a light chain CDR1, (ii) a light chain CDR2, (iii) a light chain CDR3, (iv) a heavy chain CDR1, (v) a heavy chain CDR2, and (vi) a heavy chain CDR3.

48. (Canceled).

49. (Previously presented) The antibody or antigen-binding fragment thereof according to claim 39, wherein said antibody is selected from the group consisting of a chimeric antibody, humanized antibody, and a fully human antibody.

50. (Previously presented) The antibody or antigen-binding fragment thereof according to claim 39, wherein said antigen-binding fragment is selected from the group consisting of Fab fragment, (Fab')₂ Fragment, and a Fv fragment.

51. (Previously presented) The antibody or antigen-binding fragment thereof of claim 39, wherein the antibody is conjugated to a cytotoxic agent.

52. (Currently Amended) A polypeptide comprising an amino acid sequence comprising selected from SEQ ID NOs: 3, 5, 6, 7, 8, 10, or 11, and 12, or SEQ ID NOs: 3 and 8,

wherein the polypeptide comprises: (i) a light chain CDR1, (ii) a light chain CDR2, (iii) a light chain CDR3, (iv) a heavy chain CDR1, (v) a heavy chain CDR2, and (vi) a heavy chain CDR3.

53. (Previously presented) The antibody or antigen-binding fragment thereof according to claim 39, wherein said antibody binds to a PTN epitope at a binding affinity of at least 10^6M^{-1} .

54. (Previously presented) A pharmaceutical composition comprising the antibody according to claim 39 and a pharmaceutical carrier.

55. (Currently Amended) An isolated monoclonal antibody produced by the method comprising:

- 1) selecting a host animal;
- 2) immunizing said host animal with a fusion protein comprising a PTN protein connected with a known T-cell epitope derived from a different protein;
- 3) isolating a lymphoid cell from said host animal;
- 4) fusing said lymphoid cell to a myeloma cell, so that a hybrid cell is created;
- 5) cultivating said hybrid cell; and
- 6) isolating a monoclonal antibody against said PTN protein produced by said hybrid cell.